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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,181	06/19/2002	Hyung Ki Kim	033494-017	1136
21839	7590	03/30/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			LUK, EMMANUEL S	
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ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

1722

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/064,181	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> Emmanuel S. Luk	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

***Specification***

1. The abstract of the disclosure is objected to because the abstract exceed 15 lines and/or 150 words. Correction is required. See MPEP § 608.01(b).

***Claim Objections***

2. Claim 1 is objected to because of the following informalities: Claim 1, line 6, has a grammatical error, the first refrigerators should read --consecutively installed-- so that it will be in accordance the claimed second refrigerator which is also 'installed'. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the limitation "said dice" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (3660000) in view of Sanabria (4459094).

Yoshida teaches a having a continuous length of body passing through (81, 151) with guiding means (189), first refrigerating unit (45,46) having a coolant (water), a second extruding unit (9), a second dice (7) and third dice (26) that forms the wrinkle.

Yoshida fails to teach a second refrigerator and first extruding unit.

Sanabria teaches a first extruding unit having a first dice (36,38) that forms the inner conduit, a second dice (44) forms the outer conduit that forms on the circumference of the inner conduit.

Incorporating the dual extruding units, it would have been obvious to one of ordinary skill in the art to modify Yoshida with a first extruding unit as taught by Sanabria because it allows for molding of a material with an inner resin core. In regards

to the second refrigerator, one skilled in the art would have recognized the refrigeration unit taught by Yoshida for the extruded material to have included an additional refrigerator when a first extruding unit is added so that both extruded materials would be cooled.

In regards to claim 6, Yoshida teaches means comprising of hollow cylindrical members that guides material along the apparatus (22, 23), and it can also provide support for further material as the materials travel along to the various stations in the apparatus. Thus, the hollow cylindrical members can also act as hoisting means in providing support for the material prior to entering the second refrigerator.

In regards to claim 8, the claimed description refers to the product and does not further limit the structural limitations of the apparatus.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Sanabria as applied to claims 1 and 3-8 above, and further in view of Ogawa et al (5785920).

Yoshida, as modified by Sanabria, fails to teach an activator ring and thickness control means coupled with a screw.

Ogawa teaches an extrusion molding apparatus having a die (2; activator ring) that has a thickness control means consisting of a piston and biasing member (17, 19) for transmitting force onto the die (2) for changing the thickness of the extruded material. The thickness control means with the piston and biasing member acts similarly also with a screw that can be used to aid in adjusting the thickness of the ring.

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It would have been obvious to one of ordinary skill in the art to modify Yoshida, as modified by Sanabria, with a thickness control means for a ring as taught by Ogawa because it allows for the control of the resin thickness of the material and thus improve the outcome of the desired product.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brandt, Okamoto et al and Starnes, Jr.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL

  
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